

# **Method For Producing The Image Of The Internal Structure Of An Object And A Device For Its Embodiment**

## **Abstract**

Inventions related to the intra-vision means, designed for production  
5 of visually sensed images of the internal structure of an object, in particular,  
of a biological object, are aimed at higher accuracy of determining the relative  
density indices of the object's substance in the obtained image together  
with avoiding complex and expensive engineering; when used for diagnostic  
purposes in medicine, the dosage of tissues surrounding those that are exam-  
10 ined is decreased. X-rays from source 1 is concentrated (for example, using  
X-ray lens 2) in the zone that includes the current point 4, to which the meas-  
urement results are attributed and which is located within the target area 7 of  
the object 5. Excited in this zone secondary scattered radiation (Compton,  
fluorescent) is transported (for example, using X-ray lens 3) to one or more  
15 detectors 6. By moving the said zone, the target area 7 of object 5 is scanned,  
and based on population of the intensity values of the secondary radiation,  
which are obtained with the help of one or more detectors 6 and which are  
determined concurrently with coordinates of the current point 6, judgment on  
the density of the object's substance in this point is made. Density values to-  
20 gether with respective coordinate values obtained using sensors 11 are used  
in the means 12 for data processing and imaging to build up a picture of sub-  
stance density distribution in the target area of the object.